**BACKGROUND**

In eukaryotic cells, mitosis is initiated following the activation of a protein kinase known variously as maturation-promoting factor, M-phase specific histone kinase or M-phase kinase. This protein kinase is subject to multiple levels of control of which the regulation of the catalytic subunit by tyrosine phosphorylation is the best understood. Tyrosine phosphorylation inhibits the Cdc2/cyclin B enzyme and tyrosine dephosphorylation, occurring at the onset of mitosis, directly activates the pre-MPF complex. Evidence has established that B-type cyclins not only act on M-phase regulatory subunits of the Cdc2 protein kinase, but also activate the Cdc25A and Cdc25B endogenous tyrosine phosphatase, of which Cdc2 is the physiological substrate. The two B-type cyclins, cyclin B1 and cyclin B2, have been shown to have distinct tissue distributions.

**CHROMOSOMAL LOCATION**

Genetic locus: CCNB2 (human) mapping to 15q22.2; Ccnb2 (mouse) mapping to 9 D.

**SOURCE**

cyclin B2 (A-2) is a mouse monoclonal antibody raised against amino acids 1-105 of cyclin B2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

cyclin B2 (A-2) is available conjugated to agarose (sc-28303 AC), 500 µg/ml; for IP; to HRP (sc-28303 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either Alexa Fluor® 680 (sc-28303 AF680) or Alexa Fluor® 790 (sc-28303 AF790), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either phycoerythrin (sc-28303 PE), fluorescein (sc-28303 FITC), Alexa Fluor® 488 (sc-28303 AF488), Alexa Fluor® 546 (sc-28303 AF546), Alexa Fluor® 594 (sc-28303 AF594) or Alexa Fluor® 647 (sc-28302 AF647), 200 µg/ml, for WB (RGB), IF, IHOP) and FCM; and to either Alexa Fluor® 680 (sc-28303 AF680) or Alexa Fluor® 790 (sc-28303 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

cyclin B2 (A-2) is recommended for detection of cyclin B2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of cyclin B2: 51 kDa.


**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

![cyclin B2 (A-2): sc-28303. Western blot analysis of cyclin B2 expression in K-562 (A), HeLa (B), Jurkat (C), F9 (D) and c4 (E) whole cell lysates and rat testis tissue extract (F).](image)

![cyclin B2 (A-2): sc-28303. Western blot analysis of cyclin B2 expression in non-transfected: sc-117752 (A) and mouse cyclin B2 transfected: sc-119545 (B) 293T whole cell lysates.](image)

**SELECT PRODUCT CITATIONS**


